

then each of two ports 57c of the low pressure side are connected to a respective pipe out of two pipes, which are formed by branching the inlet pipe 6, from the bottom side of the valve seat 57.

As shown in Fig. 40, a ring-shape groove 57e is formed near a periphery of the valve seat 57, into which an end of the coil spring 59 is inserted, then in this ring-shape groove 57e, there is received a thrust bearing (corresponding to slide means) 58 to prevent a pinch between one end of the coil spring 59 and the bottom of the ring-shape groove 57e from occurring and to smooth a rotation of the main valve element 55 with respect to the valve housing 53, when an opposite end of the coil spring 59 adheres to the main valve element 55 and rotates together with the main valve element 55.

As shown in Fig. 41, the main valve element 55 is provided with a low-pressure side communication groove 55a and a high-pressure side communication channel 55b.

The low pressure side communication groove 55a is formed to be opened at an end surface of the main valve element 55 at the valve seat 57 side, and when said end surface abuts on the valve seat 57, at a first rotation position of the main valve element 55, the first selector port 57a and the two ports 57c of the low pressure side communicate with each other by the low pressure side communication groove 55a, while at a second rotation position of the main valve element 55, the second selector port 57b and the two ports 57c of the low pressure side communicate with each other by the low pressure side communication groove 55a.

As shown in Fig. 36, the high pressure side communication channel 55b has a chamber 55d, which is opened at an opposite end to the valve seat 57 side of the main valve element 55 through the valve port 55c, and an inner channel 55e shown in Fig.